

## M1A1 TANK

### OPERATE TURRET (continued)

11. Inspect turret lifting device holes have protective bolts installed
12. Clean Gunners Auxiliary Sight
13. Check for any signs of damage from mating surfaces contaminated with debris
14. Check for smooth operation of CWS
15. Check for debris or excess lubrication on breech ring
16. Check MRS updates more often due to changing heat
17. Purge Optics
18. Exercise Main Gun monthly
19. Have/keep extra water containers.

## GTA 43-01-008

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#### HOT WEATHER/ DESERT OPERATION

**FM 90-3, DESERT OPERATIONS** contains detailed instructions for living and working in the desert.

**TM 9-2350-264-10** contains detailed PMCS instructions for proper maintenance and operation.

**NOTE:** A very high standard of maintenance is essential to long term operation under conditions of extreme heat. High temperature can cause early failure of systems. Constant checking is necessary to prevent failures.

***This abbreviated checklist is not to be used as a replacement for the -10 series Tech Manuals or any other PMCS guide.***

#### OPERATE ENGINE IN EXTREME HEAT

1. Clean or check Vee packs often.
2. Watch engine and transmission oil temperature and pressure lights closely.
3. If any warning message or oil levels are ignored, damage may result.
4. Check oil levels frequently.
5. Follow proper engine cool down and shutdown procedures.
6. Run engine at idle for about 2 minutes before shutting down.
7. Idling will cool the engine faster than a quick shutdown and may prevent damage from remaining engine heat.

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### **OPERATE ENGINE IN EXTREME HEAT (continued)**

8. Make sure all air inlets are kept clear to permit cooling.
9. Check all hoses and fittings frequently to insure proper fit.
10. Inspect left & right assemblies Cooling Fan Assemblies.
11. Remove packed sand from Cooling Fan Drive gear boxes and clutches.
12. Start up vehicles regularly to prevent discharge of batteries.

### **MAINTAIN BATTERY IN EXTREME HEAT**

1. Battery specific gravity must be changed to adjust for heat.
2. Watch ELECTRICAL SYSTEM voltmeter closely.
3. Keep batteries full, but do not overfill.

### **MAINTAIN OPTICS IN EXTREME DUST, SAND, OR MUD**

1. Clean fire sensor lenses at least every 4 hours in extremely dusty conditions.
2. Optics should remain covered as much as possible in these conditions to prevent scratching.
3. If tactical situation permits, remove DVE or keep covered when not in use, and keep GPS ballistic doors closed.

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### **OTHER DESERT OPERATION PMCS**

1. Inspect and verify airflow operation of NBC Protection System, Distribution, Compartment Pressure Filtration, Indications and Controls.
2. Check track tension daily.
3. Lubricate suspension items daily, and clean grease fittings.
4. Reduce sand ingestion by stretching nylon stockings over air cleaners.
5. Use high-grade 20W-50 oil: it serves well under desert conditions.
6. Check lubrication orders and TM's for the correct viscosity of lubricants for higher temperatures.
7. Clean sand and dirt away from vehicle.

### **TURRET OPERATION IN EXTREME HEAT**

1. Seal inflatable turret seal when not in use if equipped
2. Cover muzzles with shoot thru materials (Nylon stockings).
3. Remove any debris around thrust nut/gun mount
4. Clean away any excess lubrication or fluid seepage
5. Check ball and spring race ring for debris
6. Check hand held fire extinguishers
7. Check ready ammo door seals for wear or damage
8. Remove debris from ammo door rails
9. Check main hydraulic fluid reservoir
10. Inspect replenisher for debris/service